REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 23-46 are presently active in this case. The present Amendment amends Claims 23, 27-29 and 39; and adds Claims 45-46.

The outstanding Office Action rejected Claims 23-25, 27-30, 32, 35 and 38-43 under 35 U.S.C. § 102(b) as anticipated by <u>Adachi</u> (JP 07-239385 A). Claim 26 was rejected under 35 U.S.C. § 103(a) as unpatentable over <u>Adachi</u>. Claims 31, 33, 36, 37 and 44 were rejected under 35 U.S.C. § 103(a) as unpatentable over <u>Adachi</u> in view of <u>Tsuruta et al.</u> (U.S. Patent No. 5,233,180).

In order to clarify Applicant's invention, independent Claim 23 is amended to replace the "means for continuous resetting" with "a continuous discharge device configured to continuously reset the pulse signal processing circuit," and to replace "means for discontinuously resetting" with "a discontinuous resetting circuit configured to discontinuously reset" the pulse signal processing circuit. Claims 27-29 and 39 are amended for consistency. These features find non-limiting support in the disclosure as originally filed, for example at page 13, line 18; at page 20, line 3; at page 29, line 24; and at page 31, line 25.

In order to vary the scope of protection recited in the claims, new dependent Claims 45-46 are added. New Claims 45-46 find non-limiting support in the disclosure as originally filed, for example at page 18, lines 25-26; at page 19, lines 16-20; at page 20, lines 1-3 with corresponding Fig. 7. Therefore, the changes to the claims are not believed to raise a question of new matter.¹

¹ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

In response to the rejections of the claims under 35 U.S.C. § 102(b) and 35 U.S.C. §103(a), Applicant respectfully requests reconsideration of these rejections and traverses the rejections, as discussed next.

Briefly recapitulating, Applicant's invention, as recited in Claim 23, relates to a device for measuring exposure to radiations. The device includes a component for detecting photons or particles, associated with a circuit for acquiring and counting detection events. The acquisition circuit includes a pulse signal processing circuit delivering count pulses corresponding to detection events. The claimed device further includes a continuous discharge device configured to continuously reset the pulse signal processing circuit, and a discontinuous resetting circuit configured to discontinuously reset the pulse signal processing circuit.

Turning now to the applied prior art, the <u>Adachi</u> reference discloses a device for measuring exposure to radiations comprising a component 1 for detecting photons, associated with a circuit for acquiring and counting detection events, the acquisition circuit including a signal processing circuit 2, 4 delivering count pulses corresponding to detection events, and a device 12 for discontinuously resetting the pulse signal processing circuit. The device 12 is a switch, which is controlled by a control circuit 10. The control circuit 10 is synchronized with a clock signal (see the <u>Adachi</u> reference, Figs. 1-2 and paragraphs 7 and 9).

In the <u>Adachi</u> device, the reset of the circuit 2a is performed periodically and discontinuously by the switch 12 which is controlled by the circuit 10 (see in particular the signal B on Fig. 2, which corresponds to the control signal of the switch 12).

The <u>Adachi</u> reference does not disclose a continuous discharge device for resetting the circuit 2a. The circuit 2 is a charge voltage conversion circuit (see <u>Adachi</u>, paragraphs 7 and 9), but is not a device for continuously resetting the pulse signal processing circuit 2a, as would be required by the claims.

Therefore, the <u>Adachi</u> reference fails to disclose every feature recited in Applicant's claims, so that Claims 23-46 are not anticipated by the <u>Adachi</u> reference. Accordingly, Applicant respectfully traverses, and requests reconsideration of, the 35 U.S.C. § 102 rejection based on the <u>Adachi</u> reference.²

With respect to the obviousness rejection, the secondary reference, the <u>Tsuruta et al.</u> patent, discloses a device for measuring exposure to radiations comprising a signal processing circuit 2.x and a device 6.x for discontinuously resetting the circuit 2.x (see <u>Tsuruta et al.</u>, Fig. 1). The <u>Tsuruta et al.</u> patent does not disclose a continuous discharge device for resetting a pulse signal processing circuit, as required by Claim 23. In addition, the combination of applied references fails to disclose the features of the dependent claims, for example Claims 24-25, 27, 31-34, 36-37, 39-41, 43 and 44. All claim limitations must be considered when analyzing the non-obviousness of an invention. In the present case, even if the combination of the <u>Adachi</u> reference and the <u>Tsuruta et al.</u> patent is assumed to be proper, the combination fails to disclose the claimed invention. Accordingly, Applicant respectfully traverses, and requests reconsideration of, the obviousness rejection based on these references.

Further, there is no apparent reason to modify the <u>Adachi</u> teachings so as to arrive at Applicant's claimed device. It is not clear how such modification could be achieved without a substantial reconstruction or redesign of the <u>Adachi</u> teachings.⁴

² See MPEP 2131: "A claim is anticipated <u>only if each and every</u> element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

³ See MPEP 2143.03

⁴ See <u>In re Ratti</u>, 270 F.2d 810, 813, 123 USPQ 349, 352 (reversing an obviousness rejection where the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.")

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 23-46 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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